Introductory Concepts

In this Chapter, you will:
1. learn to define Information Literacy
2. learn about Information Attributes/Qualities
3. learn to differentiate between IL and IT
4. learn the capabilities of Life-long Learning
5. learn the New Economy & Digital Divide
6. learn Careers in the New Economy
1. Information Literacy

IL is the skills to information problem solving. Students need to learn how to learn and to prepare themselves for lifelong learning. As an information literate person, we need to:-

- determine the extent of information needed,
- access the needed information effectively and efficiently,
- evaluate information and its sources critically,
- incorporate selected information into one’s knowledge base,
- use information effectively to accomplish a specific purpose,
- understand the economic, legal, and social issues surrounding the use of information, and access and use information ethically and legally.

The achievement of these capabilities enables a person to identify, locate, evaluate, and use information effectively to address various problems in daily lives and profession, and thereby achieve the goal of life-long learning.

2. Information Attributes/Qualities

Decision making relies on information. Information is data that have been organized and processed to provide meaning. The quality of information is important in subsequent research or decision making. When using information, we need to be aware of the attributes of information in order to assess the quality of information. Some of the well established attributes are explained below:-

**Relevancy** – Information is relevant if it reduces uncertainty, improves decision makers’ ability to make predictions, or confirms or corrects their prior expectations. Does the information relate to the scenario?

**Accuracy** – Information is accurate if it is free from error and accurately represents an event.

**Completeness** – Information is complete if it does not omit important aspects of the underlying events that it measures. All of the required information is accounted for.

**Timeliness** – Information is timely if it is provided in time to enable decision makers to use it to make decisions. When was the material published? If the source is a web site, can you determine how often the web site is updated? Will the content provide you up-to-date information or historical information for your selected topic?
Understandability – Information is understandable if it is presented in a useful and intelligible format. Are the ideas or thoughts clearly presented? Is the information well organized and clearly presented? Is the style of writing clear and understandable?

Verifiability – Information is verifiable if two knowledgeable people acting independently would each produce the same information.

Authority – Information has authority if it originated from well-known sources. Can you clearly identify the author of the source? What are the author’s credentials and background? (Question: How can you determine the author’s credentials or background?)

Validity – Information is valid if it is genuine or legal. (Will the source provide you primary information? Facts or original work? Will the source provide you secondary information? Can you tell how the author makes his or her arguments in the source? What is the purpose of the source? Is it intended for specialist or general audience?)

Objectivity – Information is objective if it is free from bias. (Will the source provide you factual information or views or opinions? Is the author objective or prejudice?)

These qualities of information can help to evaluate the usefulness of Information and in turn, support the decision making process.

3. Information Literacy (IL) and Information Technology (IT)

Students need to distinguish between IL and IT. IT is part of IL but IL supersedes IT. IL stresses to identify, locate, evaluate, and use information. IT is use of technologies to enhance productivity. Do doubt that IT is the means to identify, locate, evaluate and use of information. (1) and (2) explain the importance of IT in our daily lives. When we march into the “New Economy”, IT has become part of our lives. IT skills have become an essential requirement upon graduation. However having IT skills does not guarantee the effective use of information. Students should have acquired the necessary IT skills when applying IL. Besides, IT skills are advancing with the advance of technologies (hardware/software); IL is used to help students to advance in these IT skills throughout their lives.

4. Life-long Learning

Hardware and Software have been advancing and this is expected to continue. New technologies are being invented. New usage of hardware; new version of software; new operating systems; new application with synergy of hardware and software, all these mean we are facing new challenges all the time. Employees are expected to upgrade themselves through part-time research, on job training, or taught formal courses, etc. Life-long learning
provides value-added effect to individual. It is clear that outcome of IL will lead to life-long learning. Since life-long learning is one of Lingnan’s mission, IL has become an essential skill that Lingnan students should master as soon as possible.

5. New Economy and Digital Divide

New Economy
Since the development of Internet/WWW, a “New Economy” has evolved. The central feature of the “new economy” has been a higher growth rate of productivity, which in turn has brought faster gains in our standards of living. The upturn of productivity in the second half of the 1990s marked the arrival of a “new economy”. Much of the improvement in productivity gains since 1995 appears tied to greater use of information technology. Occupational employment data also show the tie of IT to productivity gains. Investment in IT can raise the productivity of many types of worker.

IT has made a tremendous contribution towards the economy for the past decade. Before the dot-com bust in mid-2000, vast amount of resources was invested to IT or IT related research. Even after the dot-com bust, IT has supported exceptional productivity gains despite the economy’s slowdown and recession. IT has penetrated into our daily life. People are using IT when they are at home, traveling, entertainment, at work, etc. This will be discussed subsequently. Previously IT may be part of the curriculum of higher education, now IT is part of the curriculum of secondary education. No doubt that small child will be using IT early in their life. IT has become one of the essential skills closely following languages and mathematics.

Digital Divide
This is a phased used to describe the idea that people of the society can be divided into two distinct groups: (1) those who have access to technology with the ability to use it and (2) those who do not have access to technology or are without the ability to use it. Especially with the “new economy”, employees are being flooded with the use of IT. However this “digital divide” phenomenon has been observed and raised as social issue. Rather than creating a growing digital divide, IT can enable full participation in the new economy for everyone, regardless of age, disability or the limitations of the technology available.

Digital Divide

<table>
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<tr>
<th>Have access to technology</th>
<th>Do not have access to technology</th>
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<tbody>
<tr>
<td>Cities</td>
<td>Bridging the Digital Divide</td>
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<tr>
<td>Educated people</td>
<td>Rural areas</td>
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<td></td>
<td>Uneducated people</td>
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Department of Information Systems
In Hong Kong, efforts have been made to bridge the digital divide. Internet can be freely accessed through PCs in some organizations, shops, or public libraries. Broadband Internet access fee through ISP has became affordable in HK. Youngsters have more chances to access IT in their primary/secondary education. HK is a small place and is rather condensed. This has, in fact, helped to encourage the growth of networking around HK and access of Internet in HK. Most residential area is benefited with this network coverage. Prices of hardware/software are coming down and can be afforded by the general public. Little but efforts has been made to design PCs for people with disabilities. IT courses are offered to the elderly. The society needs to recognize the issue of Digital Divide and helps to bridge the gap.

6. Careers in the New Economy

For IT employees, new economy offers both opportunity and risk. The highest skilled IT employees enjoy strong demand for their services and above average compensation packages. At the same time, less skilled IT employees and some non-IT employees face a greater chance of being displaced by rapidly evolving technologies.

Even for employees in non-IT jobs, basic IT skills are becoming a requirement. IT skill requirements are ever changing and employees are finding that life-long training is needed for long-run economic security. Educators also recognize the growing need for skilled employees and are designing curricula to include basic IT skills training as earlier as secondary school level.

The diffusion of IT is affecting the way our labour markets operate. Widespread use of IT has reduced the importance of geographical boundaries and allowed some types of labour services to be provided from practically any location. Businesses can lower their costs by redistribute work to regions or even countries where labour costs are relatively lower. For example, major banks had relocated their backoffice services of their card centre to mainland China; paging companies have make their paging services away from HK. IT has also raised education and skill requirements across the board, causing many employees to commit to continuous training and skills upgrading. One characteristic is the growth in on-the-job computer use. Growth in computer use is not limited to employees in IT producing
industries and IT occupations. Employees in a variety of non-IT occupations find themselves using computers and computerized devices to perform their jobs and more often than not, this requires some upgrading of skills. For example, in many financial services occupations, employees use computers for routine accounting and billing as well as more complex financial modeling. Records processing has become automated with records being maintained and transmitted electronically. Real estate agents maintain listings electronically and auto mechanics use computerized diagnostic devices. Almost any occupation that requires research involves the use of IT to search in-house or online databases.

Increased competition and rapid change in the new economy, along with rising skill requirements means employees must be able to adapt quickly to changing technologies and organizational structures. This will require technical skills as well as soft skills such as interpersonal, management and problem solving skills. Long-term prosperity for many workers will depend on their flexibility and willingness to upgrade their skills.

It is quite clear that employees are expected to have a certain degree IT skills and are willing to acquire or advance these skill during their employment.